FIG. 1

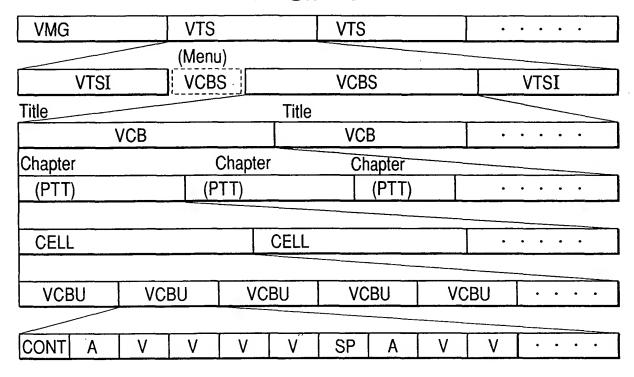


FIG. 2

| AMG | ATS | | ATS | | | • | | • |
|-----------|-----------|-------|-----|-----|----|----|------|---|
| | (Menu | | | | | | | |
| ATSI | ACB | S | ACB | S | | | ATSI | |
| Title | | Title | | | | | | |
| ļ. | \CB | | A | CB | | • | | • |
| Track | Trac | k | Tra | ack | | | | |
| (PTT) | | TT) | | (PT | Τ) | • | | • |
| Index | | Index | | | | | | |
| CELL | | CELL | | | | | | |
| | | | | | | | | |
| ACBU | ACBU | ACBU | AC | BU | AC | BU | | • |
| | 0.5 SECON | ND | | | | | | |
| A-CONT A1 | A1 A2 | V A1 | A1 | A2 | A1 | V | | |

AMG (AUDIO MANAGER)

AMGI (AUDIO MANAGER)
INFORMATION

AMGM—ACBS
(AMG MENU / AUDIO
(CONTENTS BLOCK SET)

PCI (PRESENTATION)
CONTROL
INFORMATION)
DSI (DATA SEARCH)
INFORMATION)

BACKUP AMGI

FIG. 4

ATS (AUDIO TITLE SET)

| ATSI (| AUDIO TITLE SET) | | | | | |
|-------------------------------|--------------------------------------------------|--|--|--|--|--|
| | ATSM—ACBS (ATS MENU / AUDIO CONTENTS BLOCK SET) | | | | | |
| | PCI | | | | | |
| | DSI | | | | | |
| ATSA—ACBS (ATS ALBUM—ACBC) | | | | | | |
| | PCI | | | | | |
| | DSI | | | | | |
| BACKUP ATSI | | | | | | |

AMGI (AUDIO MANAGER)

AMGI — MAT (AMGI MANAGEMENT TABLE) T-SRPT TITLE SEARCH POINTER TABLE AMGM-PGCI-UT (AUDIO MANAGER MENU)
PGCI UNIT TABLE PTL-MAIT (PARENTAL MANAGEMENT) INFORMATION TABLE ATS-ATRT (AUDIO TITLE SET) ATTRIBUTE TABLE) TXTDT-MG (TEXT DATA MANAGER) AMGM-C-ADT(AMGM CELL ADDRESS TABLE) $\mathsf{AMGM} - \mathsf{ACBU} - \mathsf{ADMAP}$ AMGM-ACBU-ADDRESS MAP

ATS-ATRT (AUDIO TITLE SET ATTRIBUTE TABLE)

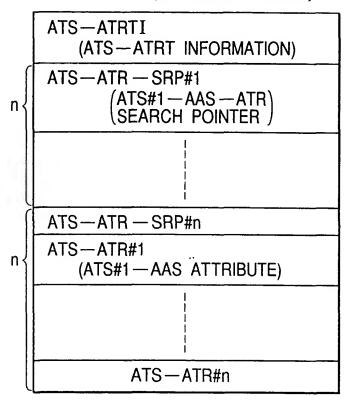


FIG. 7

ATS-ATR (ATS ATTRIBUTE)

| ATS-ATR-EA (END ADDRESS) | 4 BYTES |
|---------------------------------|-----------|
| ATS—CAT (CATEGORY) | 4 BYTES |
| ATS—ATR I (ATS—ATR INFORMATION) | 768 BYTES |

ATSI (AUDIO TITLE SET)

```
ATSI — MAT
   (ATSI MANAGEMENT TABLE)
ATS-PTT-SRPT
      ATS PART OF TITLE
      \SEARCH POINTER TABLE /
ATS-PGCIT
      (ATS PROGRAM CHAIN
      INFORMATION TABLE
ATSM—PGCI—UT
      (ATS MENU PROGRAM)
      CHAIN UNIT TABLE
ATS—TMAPT
      (ATS TIME MAP TABLE)
ATSM-C-ADT
      (ATS MENU CELL )
      \ADDRESS TABLE /
ATSM-ACBU-ADMAP
      (ATS MENU ACBU)
      ADDRESS MAP
ATS-C-ADT
     (ATS CELL ADDRESS TABLE)
ATS—ACBU — ADMAP
    (ATS—ACBU—ADDRESS MAP)
```

ATSI — MAT (ATSI MANAGEMENT TABLE)

| ATS —ID (IDENTIFIER) |
|------------------------------|
| ATS—EA (END ADDRESS) |
| ATSI-EA |
| VERN (VERSION NUMBER) |
| ATS—CAT (CATEGORY) |
| ATSI — MAT — EA |
| ATSM-ACBS-SA (START ADDRESS) |
| ATSA—ACBS—SA |
| ATS-PTT-SRPT-SA |
| ATS-PGCIT-SA |
| ATSM-PGCI-UT-SA |
| ATS-TMAPT-SA |
| ATSM-C-ADT-SA |
| ATSM-ACBU-ADMAP-SA |
| |

ATSM-AST-ATR
(ATSM AUDIO STREAM)
ATTRIBUTE

ATS—AST—Ns
(ATS AUDIO STREAM NUMBER)

ATS — AST — ATRT (ATS AUDIO STREAM) ATTRIBUTE TABLE

ATSM-AST-ATR (AUDIO TITLE SET MENU AUDIO)

| b63 | b62 | b61 | b60 | b59 | b58 | b57 , | b56 |
|----------------|---------------------------------------|---------------------------------------|---------------------|------------|-------------|---------------|-----|
| AUDIC MODE | ENCOE | ING | | | | | |
| b55 | b54 , | b53 | b52 | , b51 | b50 | b49 , | b48 |
| QUANTIZ DRC | ATION / | fs | 6 | | AUDI NUM | O CHAN BER | NEL |
| b47 | | | | 1 | | L 1 | b40 |
| | | | | | | | |
| b39 | | | ,• | l | | | b32 |
| | | | | | | | |
| b31 | | | L | l | | · | b24 |
| | · · · · · · · · · · · · · · · · · · · | | ··· ···· | | | | |
| b23 | L | L | L | l | | <u> </u> | b16 |
| | | | | | | | |
| b15 | ļ | L., | l | 1 , | | | b8 |
| | | · · · · · · · · · · · · · · · · · · · | | | | | |
| b7 | | L | L | <u> </u> | | <u> </u> | b0 |
| | | | | | | · | |

FIG. 11 ATS-AST-ATRT

| AUDIO | AUDIO STREAM | (AST) #0 | ATS-AST-ATR | 8 BYTES |
|-------|--------------|----------|-------------|---------|
| AUDIO | AUDIO STREAM | (AST) #1 | ATS-AST-ATR | 8 BYTES |
| AUDIO | AUDIO STREAM | (AST) #2 | ATS—AST—ATR | 8 BYTES |
| AUDIO | AUDIO STREAM | (AST) #3 | ATS-AST-ATR | 8 BYTES |
| AUDIO | AUDIO STREAM | (AST) #4 | ATS-AST-ATR | 8 BYTES |
| AUDIO | AUDIO STREAM | (AST) #5 | ATS-AST-ATR | 8 BYTES |
| AUDIO | AUDIO STREAM | (AST) #6 | ATS-AST-ATR | 8 BYTES |
| AUDIO | AUDIO STREAM | (AST) #7 | ATS-AST-ATR | 8 BYTES |

ATS-AST-ATR (AUDIO TITLE SET AUDIO STREAM ATTRIBUTE DATA)

| b63 | b62 | b61 | b60 | b59 | , b58 | b57 | b56 |
|----------------|---------|---------------------------------------|--------------|---------------------------------------|------------|------------------|-----------|
| AUDIO MODE | ENCO | DING | ME | AUDIO | TYPE | AUDIO AF MODE | PRICATION |
| b55 | b54 | b53 | b52 | , b51 | b50 | b49 | b48 |
| QUANTIZ DRC | ATION / | fs | S | | AUD NUM | IO CHAN BER | NEL |
| b47 | b46 | b45 | b44 | 1 | I | .1 | b40 |
| AST THINN | ING | LFE THINI | | | | | |
| b39 | | ll | | <u>.</u> | 1 | 1 | b32 |
| | | · · · · · · · · · · · · · · · · · · · | | | | | |
| b31 | | <u>1</u> 1 | · | <u> </u> | I | J | b24 |
| | | | | | | | |
| b23 | | J | | | 1 | L | b16 |
| | | ··· | | | | | |
| b15 | | 1 | | 1 | <u> </u> | _i | b8 |
| | | | | · · · · · · · · · · · · · · · · · · · | | | |
| b7 | | 1 | L | l | | | , b0 |
| | | | | | | | |

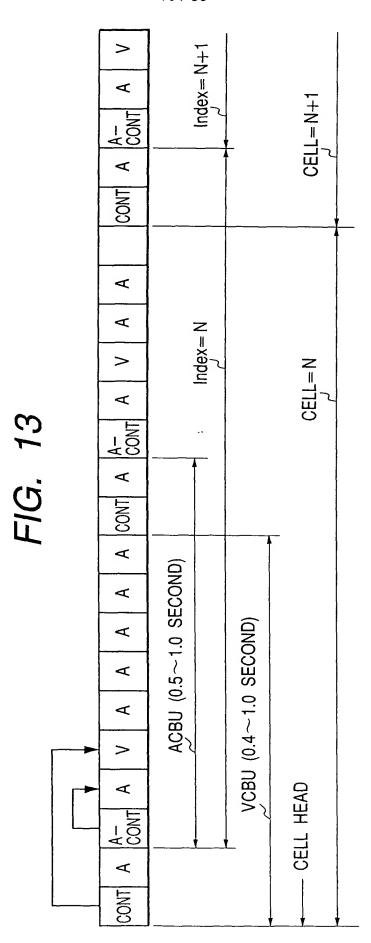


FIG. 14

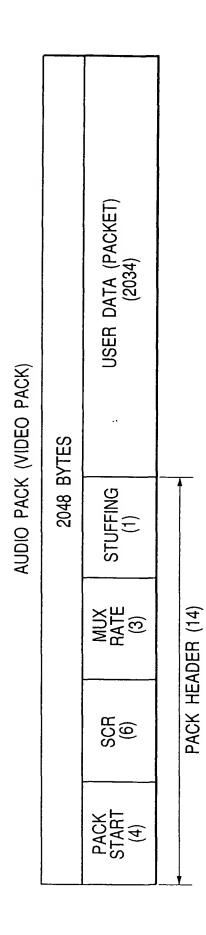
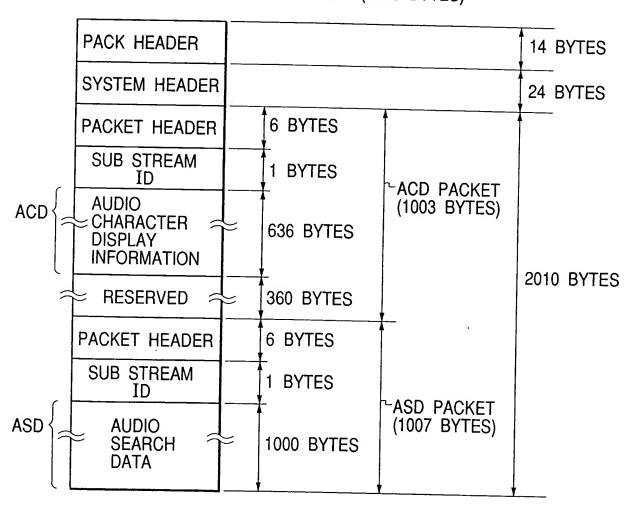


FIG. 15

AUDIO CONTROL PACK (2048 BYTES)



ACD (636 BYTES)

| GENERAL INFORMATION | 48 BY | TES |
|------------------------|-----------|-----------|
| NAME SPACE | 93 BYTES | 93 BYTES |
| FREE SPACE 1 | 93 BYTES | 93 BYTES |
| FREE SPACE 2 | 93 BYTES | 93 BYTES |
| DATA POINTER | 15 BYTES | 15 BYTES |
| TOTAL | 294 BYTES | 294 BYTES |

FIRST SECOND LANGUAGE

FIG. 17

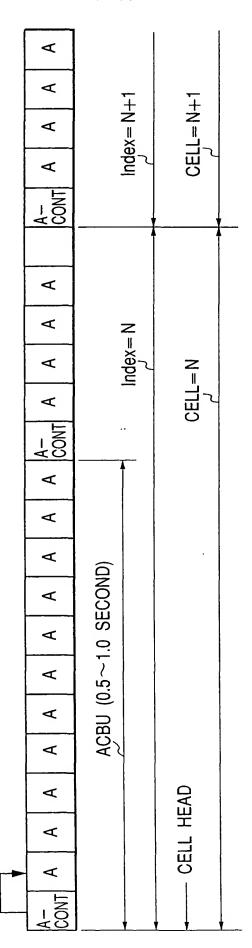
キョクモクカイセツ 前作のエディング曲 " FORGET-ME-NOT"

FIG. 18

ASD (1000 BYTES)

| 16 BYTES |
|-----------|
| 8 BYTES |
| 16 BYTES |
| 8 BYTES |
| 8 BYTES |
| 404 BYTES |
| 408 BYTES |
| 80 BYTES |
| 52 BYTES |
| |

FIG. 19



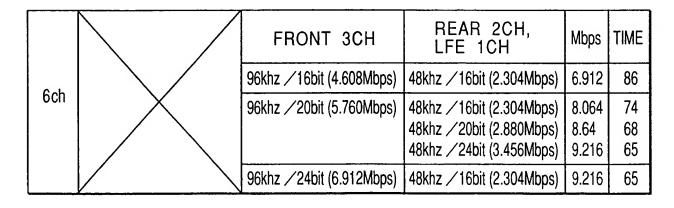
| | 2CH (STEREO) | 6CH | 8CH | Mbps | TIME (MIN) | ABOVE 80MIN |
|-----------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------|------------------------|----------------|
| | 48khz /16bit (1.536Mbps) 48khz /20bit (1.920Mbps) 48khz /24bit (2.304Mbps) | | | 1.536 1.920 2.304 | 387 310 258 | * * * |
| 2ch | 96khz /16bit (3.072Mbps) 96khz /20bit (3.804Mbps) 96khz /24bit (4.608Mbps) | | | 3.072 3.804 4.608 | 194 156 129 | * * * |
| | 192khz /16bit (6.144Mbps) 192khz /20bit (7.680Mbps) 192khz /24bit (9.216Mbps) | | | 6.144 7.680 9.216 | 97 78 65 | * |
| | 48khz /16bit (1.536Mbps) | 48khz /16bit (4.608Mbps) 48khz /20bit (5.760Mbps) 48khz /24bit (6.912Mbps) | | 6.144 7.296 8.448 | 97 82 70 | * |
| | 48khz /20bit (1.920Mbps) | 48khz /16bit (4.608Mbps) 48khz /20bit (5.760Mbps) 48khz /24bit (6.912Mbps) | | 6.528 7.680 8.832 | 91 78 67 | * |
| 2+6ch | 48khz /24bit (2.304Mbps) | 48khz /16bit (4.608Mbps) 48khz /20bit (5.760Mbps) 48khz /24bit (6.912Mbps) | | 6.912 8.064 9.216 | 86 74 65 | * |
| | 96khz /16bit (3.072Mbps) | 48khz /16bit (4.608Mbps) 48khz /20bit (5.760Mbps) | | 7.680 8.832 | 78 67 | |
| | 96khz /20bit (3.840Mbps) | 48khz /16bit (4.608Mbps) 48khz /20bit (5.760Mbps) | | 8.448 9.600 | 71 62 | |
| | 96khz /24bit (4.608Mbps) | 48khz /16bit (4.608Mbps) | | 9.216 | 65 | |
| 0 . 0 - h | 48khz /16bit (1.536Mbps) | | 48khz /16bit (6.144Mbps) 48khz /20bit (7.680Mbps) | 7.680 9.216 | 78 65 | |
| 2+8ch | 48khz /20bit (1.920Mbps) | _ | 48khz /16bit (6.144Mbps) 48khz /20bit (7.680Mbps) | 8.064 9.600 | 74 62 | |
| 6ch | | 48khz /16bit (4.608Mbps) 48khz /20bit (5.760Mbps) 48khz /24bit (6.912Mbps) 96khz /16bit (9.216Mbps) | | 4.608 5.760 6.912 5.216 | 129 103 86 65 | * |
| 8ch | | | 48khz /16bit (6.144Mbps) 48khz /20bit (7.680Mbps) 48khz /24bit (9.216Mbps) | 6.144 7.680 9.216 | 97 78 65 | * |

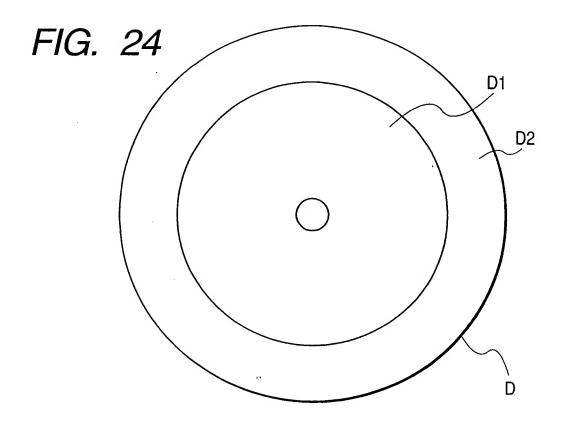
| | 2CH | FRONT 3CH | REAR 2CH, LFE 1CH | Mbps | TIME |
|-------|--------------------------|--------------------------|------------------------------------------------------|-------|----------|
| 2+6ch | 48khz /16bit (1.536Mbps) | | 48khz /16bit (2.304Mbps) 48khz /16bit (2.304Mbps) | | 70 62 |
| | 48khz /20bit (1.920Mbps) | 96khz /16bit (4.608Mbps) | 48khz /16bit (2.304Mbps) | 8.832 | 67 |

FIG. 22

| | 2CH | FRONT 3CH | REAR 2CH | Mbps | TIME |
|-------|----------------------------------------------------------------------------------|---------------------------|----------------------------------------------------------------------------------|-------|----------------|
| 2+5ch | 48khz /16bit (1.536Mbps) 48khz /20bit (1.920Mbps) 48khz /20bit (1.920Mbps) | 96khz / 20bit (5.760Mbps) | 48khz /16bit (1.536Mbps) 48khz /16bit (1.536Mbps) 48khz /20bit (1.920Mbps) | 9.216 | 67 65 62 |

FIG. 23





ACD (636 BYTES) FIG. 25 GENERAL INFORMATION 48 BYTES NAME 93 BYTES **SPACE FREE** 93 BYTES SPACE 1 **FREE** 93 BYTES SPACE 2 DATA 15 BYTES **POINTER AUDIO** REPRODUCTION 294 BYTES CONTROL INFORMATION

FIG. 26

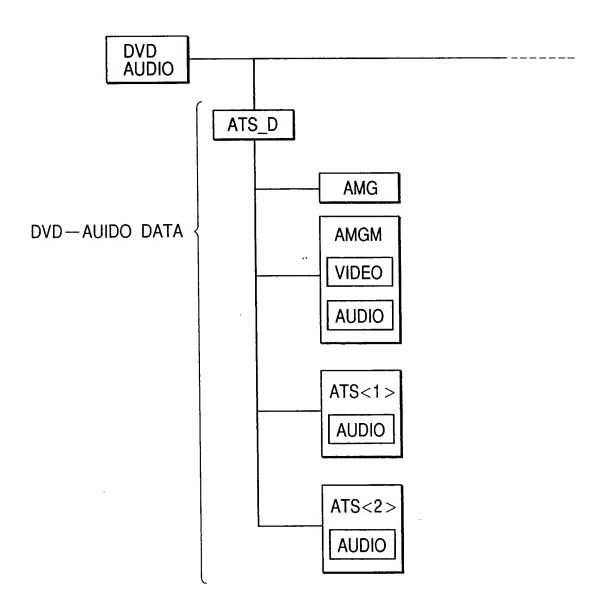


FIG. 27

| Α | | |
|--------|------------|-----------|
| А | 7 | - |
| A | Index= N+1 | CELL=N+1 |
| А | Inde | CEL |
| А | | , |
| RTI | | |
| А | | |
| А | 2 | |
| Α | Index= N | 2 |
| A | | CELL=N |
| А | ~ | |
| Α | | |
| А | | |
| А | | |
| А | | |
| A | | |
| Α . | | |
| A SPCT | | |
| ٨ | | |
| А | | EAD |
| А | | CELL HEAD |
| А | | - G |
| A | | |

FIG. 28

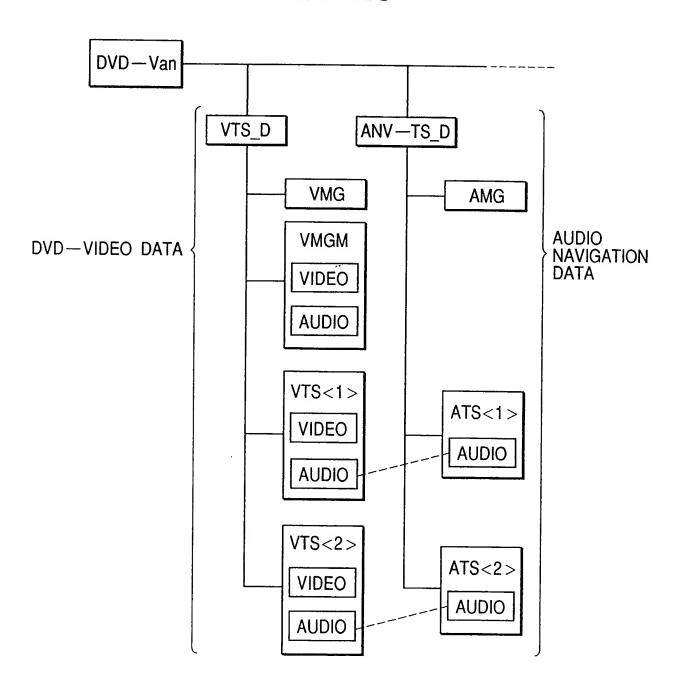


FIG. 29

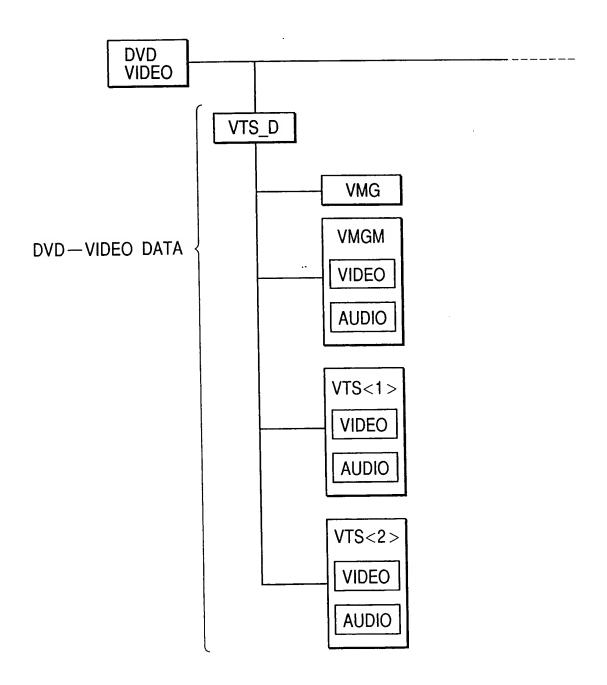
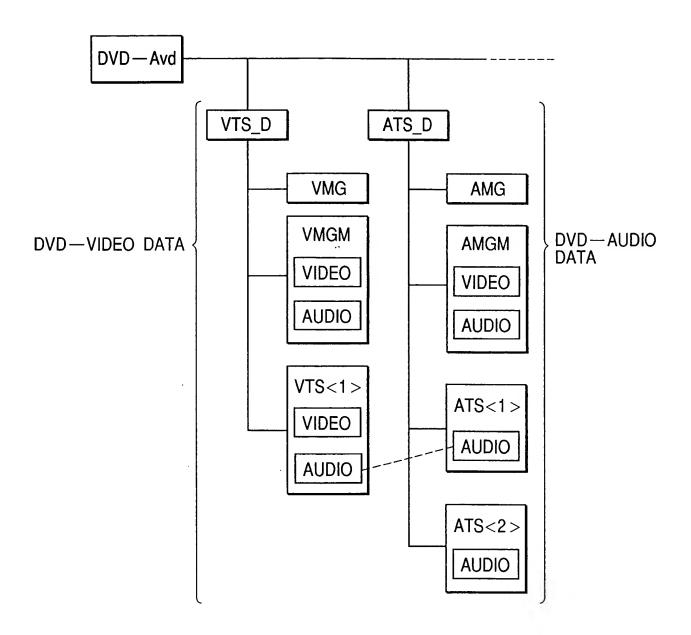


FIG. 30



AOTT-AOB-ATR

| b127 | b126 | b125 | b124 | b123 | b122 | b121 | b120 |
|-------------|-----------------|-----------|---------------------------------------|-------------|-------------|------------|------|
| | | AL | JDIO ENG | CODING M | ODE | | |
| b119 | b118 | b117 | <u>b116</u> | <u>b115</u> | <u>b114</u> | b113 | b112 |
| | | | | | | | |
| b111 | b110 | b109 | b108 | b107 | b106 | b105 | b104 |
| | · - · · · · | Q1 | | | Q | 2 | |
| b103 | b102 | b101 | b100 | b99 | b98 | b97 | b96 |
| | • | fs1 | | | fs | 2 | |
| b95 | b94 | b93 | b92 | b91 | b90 | b89 | b88 |
| MULTICHAN | NEL STRUC | TURE TYPE | | CHANNE | L ASSIGN | MENT | |
| b87 | b86 | b85 | b84 | b83 | b82 | b81 | b80 |
| | | | | | | | |
| b79 | b78 | b77 | b76 | b75 | b74 | b73 | b72 |
| | | | ., | | | | |
| b71 | b70 | b69 | b68 | b67 | b66 | b65 | b64 |
| | | | | | | | |
| b63 | b62 | b61 | b60 | b59 | b58 | b57 | b56 |
| | | | | | | | |
| <u>b55</u> | b54 | b53 | b52 | b51 | b50 | b49 | b48 |
| | | | · · · · · · · · · · · · · · · · · · · | | | | |
| b47 | b46 | b45 | b44 | b43 | b42 | b41 | b40 |
| | -, , <u>,,,</u> | | | | | | |
| b39 | b38 | b37 | b36 | b35 | b34 | b33 | b32 |
| | | | | | | | |
| <u>b31</u> | b30 | b29 | b28 | b27 | b26 | b25 | b24 |
| | | | | | | | |
| b23 | b22 | b21 | b20 | b19 | b18 | b17 | b16 |
| | | | | | | | |
| b15 | b14 | b13 | b12 | b11 | b10 | b 9 | b8 |
| | | | | | | | |
| b7 | b6 | b5 | b4 | b3 | b2 | b1_ | b0 |
| | | | | | | | |
| | | | | | | | - |

FIG. 32

| CHANNEL ASSIGNMENT INFORMATION | CHANNEL STRUCTURE OF GROUPS 1, 2 | | | | | | CHANNEL NUMBER IN | CHANNEL NUMBER IN |
|--------------------------------------|----------------------------------|------|------|------|------|------|-------------------------|-------------------------|
| (BIT PATTERN) | ACH0 | ACH1 | ACH2 | ACH3 | ACH4 | ACH5 | GROUP 1 | GROUP 2 |
| 00000b | C(mono) | none | none | none | none | none | 1 | 0 |
| 00001b | L | R | none | none | none | none | 2 | 0 |
| 00010b | Lf | Rf | S | none | none | none | 2 | 1 |
| 00011b | Lf | Rf | Ls | Rs | none | none | 2 | 2 |
| 00100b | Lf | Rf | LFE | none | none | none | 2 | 1 |
| 00101b | Lf | Rf | LFE | S | none | none | 2 | 2 |
| _00110b | Lf | Rf | LFE | .Ls | Rs | none | 2 | 3 |
| 00111b | Lf | Rf | С | none | none | none | 2 | 1 |
| 01000b | Lf | Rf | С | S | none | none | 2 | 2 |
| 01001b | Lf | Rf | С | Ls | Rs | none | 2 | 3 |
| 01010b | Lf | Rf | С | LFE | none | none | 2 | 2 |
| 01011b | Lf | Rf | С | LFE | S | none | 2 | 3 |
| 01100b | Lf | Rf | С | LFE | Ls | Rs | 2 | 4 |
| 01101b | Lf | Rf | С | S | none | none | 3 | 1 |
| 01110b | Lf | Rf | С | Ls | Rs | none | 3 | 2 |
| 01111b | Lf | Rf | С | LFE | none | none | 3 | 1 |
| 10000b | Lf | Rf | С | LFE | S | none | 3 | 2 |
| 10001b | Lf | Rf | С | LFE | Ls | Rs | 3 | 3 |
| 10010b | Lf | Rf | Ls | Rs | LFE | none | 4 | 1 |
| 10011b | Lf | Rf | Ls | Rs | С | none | 4 | 1 |
| 10100b | Lf | Rf | Ls | Rs | С | LFE | 4 | 2 |
| OTHERS | RESERVED | | | | | | | |

CHANNEL GROUP 1

CHANNEL GROUP 2

FIG. 33

LINEAR PCM AUDIO PACK

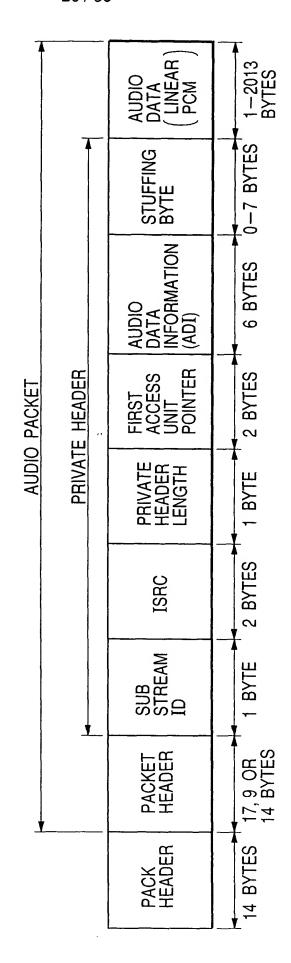


FIG. 34

LINEAR PCM PRIVATE HEADER

| FILED | BIT NUMBER | BYTE NUMBER | | |
|-------------------------------|------------|-------------|--|--|
| SUB STREAM ID | 8 | 1 | | |
| RESERVED | 4 | | | |
| ISRC NUMBER | 4 | 2 | | |
| ISRC DATA | 8 | | | |
| PRIVATE HEADER LENGTH | 8 | 1 | | |
| FIRST ACCESS UNIT POINTER | 16 | 2 | | |
| AUDIO EMPHASIS FLAG | 1 | | | |
| RESERVED " | 1 | 1 | | |
| RESERVED | 2 | | | |
| DOWN MIX CODE | 4 | | | |
| QUANTIZATION WORD LENGTH 1 | 4 | 1 | | |
| QUANTIZATION WORD LENGTH 2 | 4 | ' | | |
| AUDIO SAMPLING FREQUENCY fs 1 | 4 | 1 | | |
| AUDIO SAMPLING FREQUENCY fs 2 | 4 | ! | | |
| RESERVED | 4 | | | |
| MULTICHANNEL TYPE | 4 | 1 | | |
| RESERVED | 3 | , | | |
| CHANNEL ASSIGNMENT | 5 | 1 | | |
| DYNAMIC RANGE CONTROL | 8 | 1 | | |
| STUFFING BYTE | _ | 0-7 | | |

ADI {

AOTT-VOB-AST-ATR

| b127 | b126 | b125 | b124 | b123 | b122 | b121 | b120 |
|-------------|---------------------|------------|-------------|----------------------------------------|-------------|---------|------------|
| | AUDIO ENCODING MODE | | | | | | |
| b119 | b118 | b117 | b116 | b115 | b114 | b113 | b112 |
| | | | | ······································ | | | |
| <u>b111</u> | b110 | b109 | b108 | b107 | b106 | b105 | b104 |
| | | Q | | | | | |
| b103 | b102 | b101 | b100 | b99 | b98 | b97 | b96 |
| | | fs | | <u></u> | | | |
| b95 | b94 | b93 | b92 | b91 | b90 | b89 | b88 |
| MULTICHAN | NEL STRUC | TURE TYPE | | CHANNE | L ASSIGI | NMENT | |
| b87 | b86 | b85 | b84 | b83 | b82 | b81 | b80 |
| DECODING | AUDIO STRE | AM NUMBER | | | | | |
| b79 | b78 | b77 | b76 | b75 | b74 | b73 | b72 |
| MPEG AL | JDIO DRC | | - | COMPRES | SION AUDIO | CHANNEL | NUMBER |
| b71 | b70 | b69 | <u>b68</u> | <u>b</u> 67 | <u>b66</u> | b65 | b64 |
| <u></u> | | | | | | | |
| b63 | b62 | <u>b61</u> | b60 | b59 | <u>b58</u> | b57 | b56 |
| | | | | | | | |
| b55 | b54 | b53 | b52 | <u>b51</u> | <u>b50</u> | b49 | b48 |
| | | | | | | | |
| b47 | b46 | b45 | b44 | b43 | b42 | b41 | <u>b40</u> |
| | | | | | | | |
| b39 | b38 | b37 | b36 | <u>b35</u> | <u>b</u> 34 | _b33 | b32 |
| | | | | | | | |
| b31 | b30 | b29 | b28 | b27 | b26 | b25 | b24 |
| | - | | | | | | |
| b23 | b22 | b21 | b20 | b19 | b18 | b17 | b16 |
| | | | | | | | |
| b15 | b14 | b13 | b12 | b11 | b10 | b9 | b8 |
| | | | | | | | |
| b7 | b6 | b5 | b4 | b3 | b2 | b1 | b0 |
| | | | | | | | |
| \ | | | | | | | |

FIG. 36

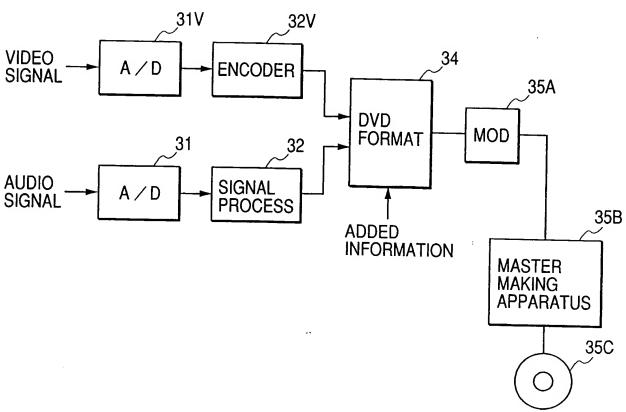
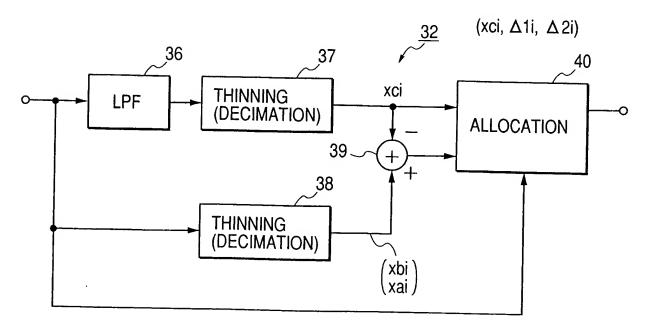


FIG. 37



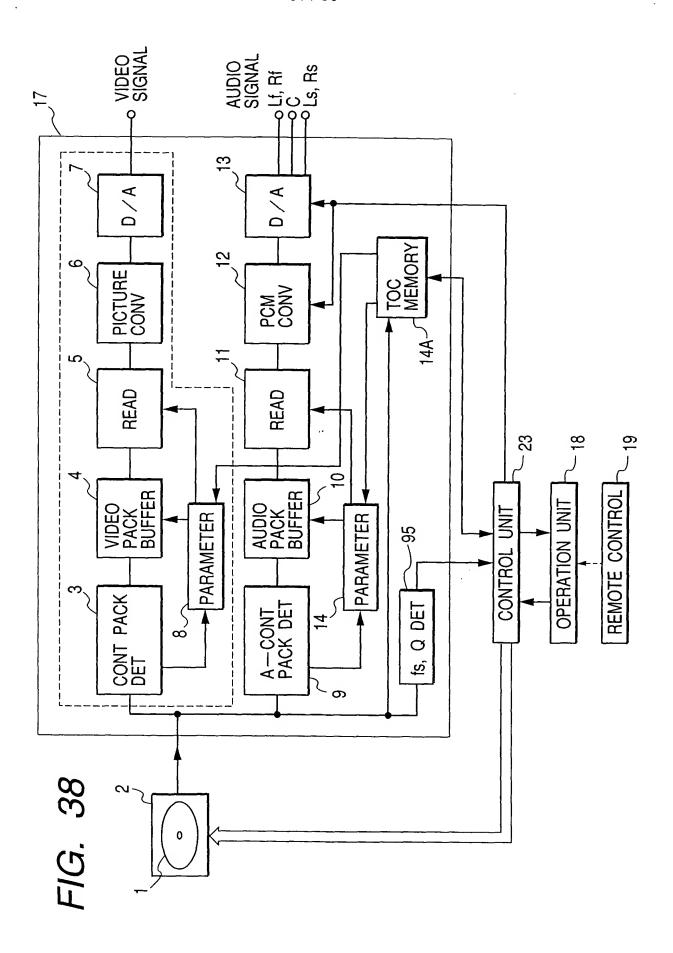
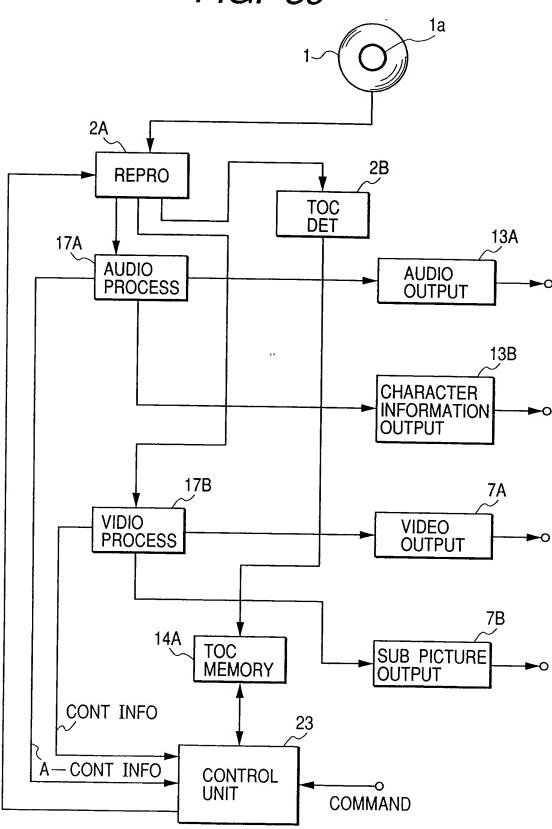


FIG. 39



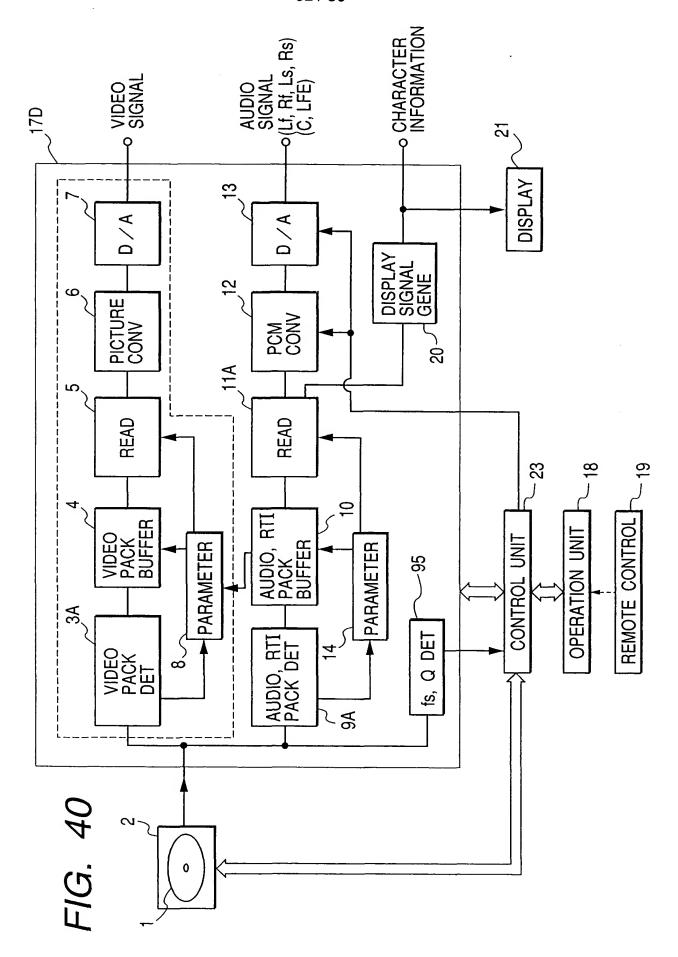


FIG. 41

